

## Appendix 2

### Copy of Public Meeting Notice

Minor, Helene

2/21 - Verification of  
Public Announcement

**From:** Annie Holmes [AHolmes@southidahopress.com]  
**Sent:** Wednesday, February 21, 2007 10:40 AM  
**To:** Minor, Helene  
**Subject:** RE: Public Info Press Publication

Helene

It doesn't scan in the way it appears in the paper. Sorry

**PUBLIC MEETING NOTICE**

The public is invited to attend an informational meeting concerning the Renova Energy Idaho LLC's proposed Ethanol Plant to be located at 951 J Street, Heyburn.

The meeting will be held at the City of Heyburn City Hall at 941 18th Street, at 3:00 PM, March 5th, 2007.

**PUBLISHED:** South Idaho Press February 21, 2007.

**From:** Minor, Helene [mailto:helene.minor@renovaenergy.com]  
**Sent:** Wednesday, February 21, 2007 10:28 AM  
**To:** Annie Holmes  
**Subject:** RE: Public Info Press Publication

Annie,

Can you scan in a copy of the announcement that ran today and email it to me? The guy I'm turning in the application w/wants a hard copy of the ad.

Thanks,

Helene

**From:** Annie Holmes [mailto:AHolmes@southidahopress.com]  
**Sent:** Tuesday, February 20, 2007 5:40 PM  
**To:** Minor, Helene  
**Subject:** RE: Public Info Press Publication

Helene

You will receive a billing statement with the affidavit and it has a billing address. But for your records our billing address is

South Idaho Press

230 East Main

Burley, Idaho 83318

Or Minidoka County News

P. O. Box 454

Rupert, Idaho 83350

Thanks Annie

**From:** Minor, Helene [mailto:helene.minor@renovaenergy.com]  
**Sent:** Tuesday, February 20, 2007 2:20 PM  
**To:** Annie Holmes  
**Subject:** RE: Public Info Press Publication

Annie,

we receive an invoice for the \$20.20? – or do you have the mailing address where payment should be sent?

Thanks,

Helene

2/21/2007

**From:** Annie Holmes [mailto:AHolmes@southidahopress.com]  
**Sent:** Tuesday, February 20, 2007 10:18 AM  
**To:** Minor, Helene  
**Subject:** RE: Public Info Press Publication

Helene

I received your legal and have it ready for the paper on February 21, 2007. The total cost of the legal is \$20.20. My legal number is #361873. If you have questions or need assistance in any way please call or email me and I will be glad to help you in any way possible.

Thanks Annie

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**From:** Minor, Helene [mailto:helene.minor@renovaenergy.com]  
**Sent:** Monday, February 19, 2007 1:51 PM  
**To:** Annie Holmes  
**Cc:** sotchimonas@msn.com  
**Subject:** FW: Public Info Press Publication

Annie,  
I'm resending the document Lavar Hamblin said he forwarded that has the information we need printed. We need this to run on Wednesday, Feb 21<sup>st</sup> and like we discussed, please send me a copy verifying it ran.  
Our billing address is –  
Renova Energy  
PO Box 8043  
Boise, ID 83707  
Attn: Helene Minor

Please feel free to contact me if you have further questions.

Thanks,

Helene Minor  
Renova Energy dba  
Wyoming Ethanol  
1-800-669-3607 voice  
1-800-497-8280 fax

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**From:** Sot Chimonas [mailto:sotchimonas@msn.com]  
**Sent:** Monday, February 19, 2007 11:20 AM  
**To:** Minor, Helene  
**Subject:** Public Info Press Publication

Helene,

Another favor!

Please get a hold of the Southern Idaho Press and see if we can publish the attached notice on Wednesday 2/20. The official publication needs to be sent to us from the newspaper and included with the Air Permit documentation that Troy is picking up tomorrow.

Thanks.  
Sot

2/21/2007

## Appendix 3

### Modeling Protocol and DEQ Response



Millennium Science & Engineering, Inc.

1605 N. 13<sup>th</sup> Street  
Boise, Idaho 83702  
Phone: (208) 345-8292  
Fax: (208) 344-8007

November 8, 2006

Mr. William Rogers  
Air Quality and Permits Manager  
Idaho Department of Environmental Quality  
1410 North Hilton  
Boise, Idaho 83706

Re: Protocol for Air Dispersion Modeling to Support Pre-Permit Construction  
Approval and PTC Application, Renova Energy, Inc., Northeast Corner of  
Intersection, Highway 30 and 9<sup>th</sup> Street, Heyburn, Idaho

Dear Bill:

Please find attached our proposed Air Modeling Protocol for air dispersion modeling that will be completed to support a Pre-Permit Construction Approval and PTC application for a proposed ethanol plant in Heyburn, Idaho. The plant will be located at the northeast corner of the intersection of State Highway 30 and 9<sup>th</sup> Street. The format of this document follows the format suggested in the December 31, 2002 "State of Idaho Air Quality Modeling Guideline."

We request that you review and approve this protocol. We will then proceed with modeling following the approved protocol. Please contact me at (208) 345-8292 if you have any questions regarding this modeling protocol.

Sincerely,

Troy Riecke, R.E.  
Project Engineer

cc: Kevin Schilling – Idaho DEQ  
Sot Chimonas – Chimonas Enterprises  
Bill Newman – Renova Energy  
Fantom Chuck – Renova Energy  
Dan Schwartzkopf – Renova Energy  
Vic Tomek – Renova Energy

## **Modeling Protocol – Renova Energy Heyburn, Idaho Facility**

### **1.0 Purpose**

Air dispersion modeling is proposed to demonstrate compliance with NAAQS for criteria pollutants and Idaho DEQ standards for TAPs in support of a Pre-Permit Construction Approval and PTC application for a proposed ethanol plant to be constructed and operated by Renova Energy (see attached site plan).

### **2.0 Model Description / Justification**

Air dispersion modeling will be performed using the short term dispersion model Industrial Source Complex with Plume Rise Model Enhancement (ISC-PRIME). ISC-PRIME is an alternative EPA refined model formerly listed in Appendix W of 40 CFR Ch. I, Part 51 – Guideline on Air Quality Models. On December 9, 2005 AERMOD replaced ISCST3 as the EPA preferred air dispersion model for refined modeling of industrial point sources. A one-year transition period has been established that allows for continued use of ISCST3 through November 9, 2006. Based on a telephone conversation with Mr. Kevin Schilling, Idaho DEQ, it is our understanding that submittal of a modeling protocol on or prior to November 9, 2006 will allow a facility to use ISC to demonstrate compliance with applicable air quality standards for new permit applications. MSE proposes to use ISC-PRIME for this ambient impact analysis because required AERMOD meteorological input files are not readily available for the project area. It is anticipated that the results from ISC-PRIME will provide a closer match to AERMOD results than the non-PRIME version of ISCST3 because the PRIME algorithm is incorporated into AERMOD. Building downwash will be accounted for in the ISC-PRIME model. Building dimensions will be entered into the Building Parameter Input Program for PRIME (BPIP-PRIME) to calculate appropriate building profiles to import into ISC-PRIME.

### **3.0 Emission and Source Data**

An ethanol manufacturing plant is proposed to be constructed at the site. Ethanol will be manufactured at the site by fermentation of grain. Biogas from an onsite anaerobic digester will be combusted in boilers and power generators. Table 1 provides a list of the emission sources and the pollutants that will be modeled at the site.

**Table 1**  
**Emission Sources and Pollutants to be Modeled**

Emission Source	Criteria Pollutants				Toxic Air Pollutants (TAPs)				
	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>x</sub>	As	Cd	CH <sub>2</sub> O	H <sub>2</sub> S	Ni
<b>Boilers (combust biogas from anaerobic digester)</b>									
Boiler #1	X	X	X	X	X	X	X	X	X
Boiler #2	X	X	X	X	X	X	X	X	X
<b>Power Generators (combust biogas from anaerobic digester)</b>									
Generator Engine #1	X	X	X	X	X	X	X	X	X
Generator Engine #2	X	X	X	X	X	X	X	X	X
<b>Flare</b>									
Vapor Combustion Unit	X	X	X	X					
<b>Other</b>									
Grain Receiving Baghouse	X								
Grain Milling and Cleaning Baghouse	X								
Cooling Tower #1	X								
Cooling Tower #2	X								

Note: an "X" represents that the pollutant will be modeled for that source.

There are a variety of proposed point and fugitive emission sources at the site that are expected to emit volatile organic compounds (VOCs). These emissions will not be included in the ambient impact assessment (the total estimated VOC emissions are less than 50 tons per year). Ethyl alcohol emissions are also anticipated from a variety of sources at the plant but will not be included in the ambient impact assessment. Ethyl alcohol is considered a hazardous air pollutant with a screening emission level (EL) of 125 lb/hr (547 ton/yr). Since ethyl alcohol is a subset of the VOCs and because estimated VOC emissions are less than 10% of the EL, the projected ethyl alcohol emissions can be assumed to be insignificant and will not require air dispersion modeling to demonstrate compliance.

The following is a list of emission sources that will only emit VOCs and will therefore not be modeled:

- LDAR Alcohol Plant - Fugitive emissions from piping, valves, pumps, etc.
- Ethanol Absorption Scrubber
- Shift Tank (TK-801A)
- Shift Tank (TK-801B)
- Recycle Product Tank (TK-803)
- Denaturant Tank (TK-808)
- Product Storage Tank (TK-810)
- Loading Rack – fugitive emissions
- Wetcake Storage
- Wetcake Loadout

There is also an emergency flare for the anaerobic digester that will combust biogas if the boilers or power generator engines are not operational. This emergency flare will not be modeled since it will only be used for short emergency periods and because if it is in use the other sources (boilers and/or generator engines) will not be in operation.

#### **4.0 Receptor Network**

A receptor network will be established so that ambient concentrations can be evaluated. The first step in this process is to determine the location of the ambient air boundary and the second step is to assign receptor locations within the ambient air zone.

##### **4.1 Ambient Air Boundary**

The ambient air boundary will be the facility's property boundary (fence line).

##### **4.2 Receptors**

Receptors will be established to determine maximum ambient air concentrations. A receptor grid with approximately 300 feet spacing will be established across the entire evaluated area. Receptors along the ambient air boundary will be spaced approximately 100 feet apart. No receptors will be established within the facility's controlled property boundary.

#### **5.0 Elevation Data**

The facility will be modeled assuming flat terrain. The change in elevation across the site is less than 10 feet. There are no terrain elevations that exceed the emission source elevations, so the terrain will be modeled as simple terrain.

#### **6.0 Meteorological Data**

Surface meteorological data for Heyburn is available from the Idaho DEQ for year 2000. This data is considered more representative of the site than either the Pocatello or Boise datasets that are currently available from the EPA SCRAM website and will therefore be used for this ambient impact assessment. Boise upper air meteorological data will be obtained from the EPA SCRAM website for the same time period as the Heyburn surface data. The datasets will be formatted for use in ISCST3-PRIME using the EPA meteorological preprocessor PCRAMMET.

#### **7.0 Land Use Classification**

The facility is industrial while the surrounding land is a mix of open space/agricultural and industrial land uses. Air dispersion modeling will be performed using a "rural" classification.

#### **8.0 Background Concentrations**

We understand that Mr. Schilling will provide appropriate background concentrations for use in the modeling.

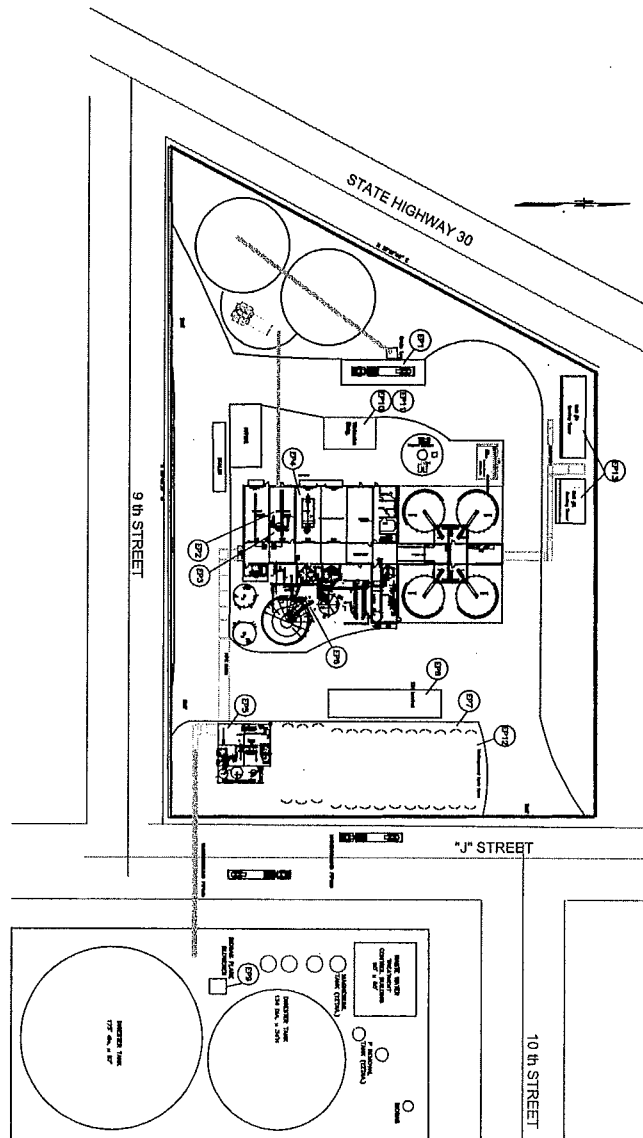
#### **9.0 Evaluation of Compliance With Standards**

For the criteria pollutants, the applicable background concentrations will be added to the predicted ambient concentrations determined from air dispersion modeling to result in total ambient concentrations. These total ambient concentrations will be compared to the NAAQS. If total ambient concentrations exceed the NAAQS, the emission source will be modified (e.g., operational controls, emission controls, modification of stack



configuration) and the emission sources will be remodeled until no exceedance of the NAAQS occurs.

For the toxic air pollutants, predicted ambient air concentrations will be compared to applicable AAC and AACC listed in IDAPA 58.01.01.585 and 586, respectively. If an applicable AAC or AACC is exceeded by a predicted ambient air concentration, the risk associated with that exceedance will be considered and discussed with the Idaho DEQ.



<b>C-1</b>	<b>REVISIONS</b> NO.    DATE    BY    DESCRIPTION	<b>PROJECT:</b> IDAHO	<b>CERTIFICATION:</b> I hereby certify that the above is a true and correct copy of the original as submitted to the City of Idaho.	<b>Dilling</b> TECHNICAL ELECTRICAL CONTRACTORS Industrial • Commercial • Institutional 2811 Fowler Dr. Fort Wayne, IN 46818 260-406-3423 520 High Street P.O. Box 47 Logansport, IN 46847 574-753-3182 4140 West 39th St. Carmel, IN 46032 317-334-1869

**Troy Riecke**

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**From:** Kevin Schilling [Kevin.Schilling@deq.idaho.gov] on behalf of Kevin.Schilling@deq.idaho.gov  
**Sent:** Wednesday, November 29, 2006 8:09 AM  
**To:** tdriecke@mse-environmental.com; William.Rogers@deq.idaho.gov  
**Cc:** bill.newman@renovaenergy.com; fanton.chuck@renovaenergy.com;  
 dan.schwartzkopf@renovaenergy.com; vic.tomek@renovaenergy.com; sotchimonas@msn.com  
**Subject:** RE: Air Dispersion Modeling Protocol for Proposed Ethanol Plant in Heyburn, Idaho

Troy,

I have reviewed the submitted protocol for modeling analyses associated with the proposed ethanol plant in Heyburn. DEQ has determined the methods and data proposed in the protocol are acceptable as described, provided the following issues/comments are addressed in the submitted application:

- The application should provide a detailed description of TAPs applicability, including fugitive TAPs. Although it appears ethanol emissions will be well below the ELs, we need verification/documentation that other TAPs will not be emitted at levels exceeding the ELs. For example, there is mention of a denature tank. Are the TAPs in the denature material? If so, potential emissions need to be addressed clearly.
- The protocol states that the facility will be modeled without accounting for terrain, stating that the change in elevation over the site is less than 10 ft. You should extend your analysis out from the facility as well, since that is what really matters for terrain effects. Looking out to 1000 meters should be adequate - of course this depends and the nature of the emissions sources and how close impacts are to NAAQS.
- The receptor grid appears to be reasonable. However, it is the applicants responsibility to adequately demonstrate that the maximum concentration was resolved by the model. If modeled concentrations are very near the standard at one location and surrounding receptors are very low, then there is a high probability that the model did not resolve the maximum concentration.
- Please provide documentation and verification of all emissions release parameters, especially flow rates and temperatures. Please note that typical release conditions should be used rather than conditions at maximum load, unless the applicant proposes to use multiple operational scenarios in the analyses. Also, many equipment manufacturers, especially for generators, report parameters measured at the exhaust manifold. These typically result in unrealistically high temperatures and flow rates, and will substantially underestimate ambient impacts.
- From the information provided I cannot quickly determine whether rural/agricultural background values should be used or small town/suburban values. The following background concentrations are conservatively based on small town/suburban values: PM10 - 24hr = 81 ug/m3, annual = 27; CO - 1hr = 10,200 ug/m3, 8hr = 3,400; SO2 - 3hr = 42 ug/m3, 24hr = 26 ug/m3, annual = 8; NO2 - annual = 32 ug/m3.
- Please provide a modeling report that clearly shows how compliance was demonstrated, providing a table of model results.
- Provide all model input and output files, including the BPIP input file with the application.

When submitting the application, please attach a copy of the protocol and this protocol approval notification.

If you have any questions, please contact me via phone or email.

Kevin Schilling

2/21/2007

Stationary Source Modeling Coordinator

Idaho Department of Environmental Quality

208 373-0112

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**From:** Troy Riecke [mailto:tdriecke@mse-environmental.com]

**Sent:** Wed 11/8/2006 5:01 PM

**To:** William Rogers; Kevin Schilling

**Cc:** bill.newman@renovaenergy.com; fanton.chuck@renovaenergy.com; dan.schwartzkopf@renovaenergy.com; vic.tomek@renovaenergy.com; Sotchimonas@Msn. Com

**Subject:** Air Dispersion Modeling Protocol for Proposed Ethanol Plant in Heyburn, Idaho

Bill,

Please find the modeling protocol attached for a proposed ethanol manufacturing plant to be constructed in Heyburn, Idaho. The applicant, Renova Energy, would like to use the pre-permit construction approval process to begin construction as soon as possible. I will follow up tomorrow with a call to discuss scheduling a meeting to begin the permitting process.

Thanks,

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Troy D. Riecke, P.E.

Project Engineer

**MSE - Millennium Science & Engineering, Inc.**

1605 N. 13th Street, Boise, ID 83702

(tel)208.345.8292 (fax)208.344.8007

[tdriecke@mse-environmental.com](mailto:tdriecke@mse-environmental.com)

2/21/2007